Serial No. 10/018,339

HARZ et al.

PF 50091

claim Amendments

Add new claims 22-23 as set forth in the following listing of claims:

- (previously presented) A process for preparing a
  polymer-coated, granulated enzyme-containing pelletizable
  feed additive, which comprises
  - (1) processing a mixture comprising a support suitable for feedstuffs and at least one enzyme to form a crude granulate;
  - (2) coating the crude granulate with an organic polymer which is suitable for feedstuffs, by
  - (2a) spraying the crude granulate in a fluidized bed with a melt, a solution or dispersion of the organic polymer or carrying out in a fluidized bed a cowder coating with the organic polymer; or
  - (2b) coating the crude granulate in a mixe: with a melt, a solution or a dispersion of the organic polymer or carrying out the power coating with the organic polymer.
- 2. (previously presented) The process of claim 1 wherein a mixture comprising the support suitable for feedstuff and a solution of at least one enzyme is processed to form a crude granulatic by extrusion, mixer-granulation, fluidized-bed granulaticm, disk agglomeration or compacting.
- 3. (previously presented) The process of claim 1 wherein the moist crude granulate is spheronized before carrying out the polymer coating.
- 4. (previously presented) The process of claim 1 wherein the granulation and/or polymer coating is carried out continuously or batchwise.
- 5. (canceled). 050702

- 5 -

JUL O 6 2005 S

Serial No. 10/018,339 HARZ et al. PF 50091

- 6. (previously presented) The process of claim 1 wherein the crude granulate is coated with an aqueous solution or dispersion of the organic polymer.
- 7. (previously presented) The process of claim 6 wherein a from 10 to 50% strength by weight aqueous or nonqueous solution of at least one polymer is used from the coating, which polymer is selected from the group consisting of
  - (a) polyalkylene glycols having a number average molecular weight of from 400 to 15,000;
  - (b) polyalkylene oxide polymers or copoly (ers having a number average molecular weight of from 400 to 20,000;
  - (c) polyvinylpyrrolidone having a number average molecular weight from 7000 to 1,000,000;
  - (d) vinylpyrrolidone having a number average molecular weight of from 30,000 to 100,000;
  - (e) polyvinyl alcohol having a number average molecular weight of 20,000 to 100,000; and
  - (f) hydroxyproply methyl cellulose having a number average molecular weight from 6000 to 80,000.
- 8. (previously presented) The process of claim 6 wherein a from 10 to 40% strength by weight aqueous and nonaqueous dispersion or solution of at least one polymer is used for the coating, which polymer is selected from the group consisting of
  - (a) alkyl (meth)acryl ate polymers and copolymers having a number average molecular weight from .00,000 to 1,000,000; and
  - (b) polyvinyl acetate having a number average molecular weight of from 250, 000 to 700,000 op:ionally stabilized with polyvinylpyrrolidone.
- 9. (previously presented) The process of claim 1 wherein a powder coating is carried out with a power of a solid polymer which is selected from the group consisting of hydorxyproply methyl celluloses having a number average

050702

Serial No. 10/018,339

## HARZ et al.

PF 50091

molecular weight from 6000 to 80,000 mixed with a plasticizer.

- 10. (previously presented) The process of claim 1, wherein a melt of at least one polymer is used for the coating, which polymer is selected from the group consisting of:
  - a) polyalkylene gylocls, having a number average molecular weight from 1000 to 15,000; and
  - b) polyalkylene oxide polymers or copolyrers having a number average molecular weight from 1000, to 20,000.
- 11. (previously presented) A method for preparing a palletized feedstuff composition, which method comprises palletizing a mixture of animal fee constituents and a granulated, polymer-coated feedstuff additive that comprises a solid granulated mixture of a support suitable for feedstuffs and at least one enzyme, coasied with an organic polymer which is suitable for feeds suffs and selected from the group consisting of:
  - a) polyalkylene glycols having a number average molecular weight of from 400 to 15,000;
  - b) polyalkylene oxide polymers or copolymers having a number average molecular weight of from 4000, to 20,000;
  - c) polyvinylpyrrolidone having a number average molecular weight from 7000 to 1,000,000;
  - d) vinylpyrrolidone/binylacetate copolym:rs having a number average molecular weight from 30,000 to 100,000;
  - e) polyvinyl alcohol having a number ave:age molecular weight from 20,000 to 100,000;
  - f) hydroxypropyl methyl cellulose having a number average molecular weight from 6,000 to 80,000:
  - g) alkyl (meth)acrylate polymers and copplymers having a number average of molecular weight from 100,000 to 1,000,000; and

050702

Serial No. 10/018,339

## HARZ et al.

PF 50091

- h) polyvinyl acetate having a number average molecular weight from 250,000 to 700,000 optionally stabilized with polyvinylpyrrolidone.
- 12. (previously presented) The method of claim 1.1 wherein the additive has a mean particle size from 0.4 to 2 mm.
- 13. (previously presented) The method of claim 11 wherein the additive comprised at least one enzyme which is selected from the group consisting of oxide reductases, transferases, lyases, isomerases, ligases, phosphates and hydrolases.
- 14. (previously presented) The method of claim ..3 wherein they hydrolase is a non-starch-polysaccharide-cleaving enzyme.
- 15. (previously presented) The method of claim 1.4 wherein the phophatase is phytase.
- 16. (previously presented) The method of claim ..5 wherein the additive comprised from  $1x10^3$  to  $1x10^5$  11 of phytase per gram of total weight.
- 17. (previously presented) A pelleted feedstuff composition which, comprises at least one chanulate, polymer-coated feed additive as admixture, wherein said additive comprises a solid granulated mixture of a support suitable for feedstuff and at least on enzyme, coated with an organic polymer which is suitable for feedstuff and selected from the group consisting of:
  - a) polyalkylene glycols having a number average molecular weight from 400 to 15,000;
  - b) polyalkylene oxide polymers or copolymers having a number average molecular weight from 1000 to 20,000
  - c) polyvinylpyrrolidone having a number average molecular weight from 7000 to 1,000,000;
  - d) vinylpyrrolidone/vinylacatate copolymers having a number average molecular weight from 33,000 to 100,000;

050702

Serial No. 10/018,339

## HARZ et al.

PF 50091

- e) polyvinyl alcohol having a number ave:age molecular weight from 20,000 to 100,000;
- f) hydroxypropyl methyl cellulose having a number average molecular weight from 6000 to 80,000
- g) alkyl (meth)acrylate polymers and cop:lymers having a number average molecular weight from 100,000 to 1,000,000;a d
- h) polyvinyl acetate having a number average molecular weight from 250,000 to 700,000, optionally stabilized with polyvinylpyrroldine.
- 18. (canceled)
- 19. (previously presented) The process of claim 11, wherein the organic polymer coating does not melt during palletizing.
- 20. (previously presented) The process of claim 1, wherein the organic polymer is filler-free.
- 21. (previously presented) The process of claim 1, wherein the coating takes place at from about 35 to 50°C.
- 22. (new) A method for improving pelleting stability of a granulated enzyme-containing feed additive comprising applying a polymer coating acceptable as feed stuff onto said granules of said granulated feed in an amount sufficient to improve pelleting stability of said granules.
- 23. (new) The method of claim 22, wherein the coating is applied in a proportion of about 3 to 25% ky weight of the total weight of the additive.